

Amendment and Response Under 37 C.F.R. 1.116

Applicant: Ralf Brederlow et al.

Serial No.: 10/562,458

Filed: June 29, 2006

Docket No.: I432.128.101/P31912

Title: ELECTRONIC COMPONENT WITH ID TAGS

REMARKS

The following remarks are made in response to the Final Office Action mailed December 10, 2008. Claims 12-31 were rejected. With this Response, claims 12 and 22 have been amended. Claims 12-31 remain pending in the application and are presented for reconsideration and allowance.

In the Drawings

The Examiner objected to the Drawings for failing to comply with 37 C.F.R. 1.121(d). Applicants have amended the figures to now comply with 37 C.F.R. 1.121(d). Applicants have submitted a set of Replacement Sheets. Applicants believe the drawings are now in condition for allowance.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected claims 12-15, 17-20, 22-26, and 28-30 under 35 U.S.C. § 103(a) as being unpatentable over the Baude et al. U.S. Patent Application Publication No. 2004/0119504 in view of the Kaiser et al. U.S. Patent No. 5,870,031.

The Examiner rejected claims 16 and 27 under 35 U.S.C. § 103(a) as being unpatentable over the Baude et al. U.S. Patent Application Publication No. 2004/0119504 in view of the Kaiser et al. U.S. Patent No. 5,870,031 and further in view of the Seal U.S. Patent No. 6,693,511.

The Examiner rejected claims 21 and 31 under 35 U.S.C. § 103(a) as being unpatentable over the Baude et al. U.S. Patent Application Publication No. 2004/0119504 in view of the Kaiser et al. U.S. Patent No. 5,870,031 and further in view of the Bayron et al. U.S. Patent No. 5,769,051.

As amended, claim 12 is an electronic component operable with an AC voltage. The electric component has at least one input, at least one output and a pair of functionally identical electronic sub-components. *The functionally identical electronic sub-components are connected in parallel.* The at least one input of the electronic sub-component is connected to a respective input of the two functionally identical electronic sub-components. The at least one output of the electronic component is connected to a respective output of the two functionally identical electronic

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sub-components. The electronic component is configured such that at the at least one output only one output signal of a first sub-component of the pair of functionally identical electronic sub-components can be picked up during a first half-wave of an AC voltage, whereas only one output signal of the second sub-component of the pair of functionally identical electronic sub-components can be picked up during a second half-wave of the AC voltage. This is not taught or suggested in the art of record.

As clarified in amended claim 12, the electronic sub-components are connected in parallel and driven by the first half-wave and the second half-wave, respectively. Due to this arrangement, an AC-voltage can be directly used for applying the supply voltage to the electronic sub-components. This is not true of the art of record.

The Baude et al. reference merely discloses a ring oscillator circuit in Figure 6, wherein AC-powered inverter stages are used. But in this case, the whole wave of the AC-voltage is applied on the inverter stages.

Furthermore, as illustrated in Figure 6 of the Baude et al. reference, the inverter stages are not connected in parallel. Quite to the contrary, they are connected in series. The voltage applied to source/drain of load transistors 36A to 36G is merely the supply voltage, whereas the signal is coupled to the gates of drive transistors 35A to 35G, which are connected in series.

Furthermore, on page 4 of the Office Action, the Examiner admits that the feature that at the at least one output only one output signal of a first sub-component of the pair of functionally identical electronic sub-components can be picked up during a first half-wave of an AC voltage, whereas only one output signal of the second sub-component of the pair of functionally identical electronic sub-components can be picked up during a second half-wave of the AC voltage, is not disclosed by the Baude et al. reference. Consequently, amended claim 12 is not taught or suggested by the Baude et al. reference.

Connecting the functionally identical electronic sub-components in parallel makes it possible to realize a configuration in an appropriate manner, in which at the at least one output only one output signal of a first sub-component of the pair of functionally identical electronic sub-components can be picked up during a first half-wave of an AC voltage, whereas only one output signal of the second sub-component of the pair of functionally identical electronic sub-components can be picked

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up during a second half-wave of the AC voltage. As such, a rectifier, which converts an AC-voltage into a DC-voltage, is not necessary in this case.

In that context, the Examiner cites the Kaiser et al. reference. But the Kaiser et al. reference merely discloses a rectifier, which converts an AC-voltage into a DC-voltage. In any case, the integration of the rectifier of the Kaiser et al. reference into an electronic circuit of the Baude et al. reference would not lead to the electronic component according to claim 12, which has the feature that a rectifier is not necessary.

In any event, the Kaiser et al. reference does not cure the deficiencies of the Baude et al. reference, since the Kaiser et al. reference does not disclose the parallel connected sub-components. As illustrated in Figure 4 in the Kaiser et al. patent, interpreting transistors P1 and N2 as the first sub-component and the transistors P2 and N1 as the second sub-component, it is clear, since they have different inputs (Coil 1 and Coil 2), that these sub-components are not connected in parallel.

Furthermore, the first and the second sub-components in the Kaiser et al. patent are not functionally identical electronic sub-components, as provided in claim 12, due to the different connections of respective transistors in the circuit of Figure 4. For example, said asymmetry results from the different switching connections of the respective transistors with respect to the inputs and outputs of the circuit in Figure 4. As such, a combination of the Baude et al. patent and the Kaiser et al. patent does not teach or suggest subject matter of amended claim 12.

In this connection the Examiner alleges that the Kaiser et al. patent would enable to minimize the voltage drop between the alternating current peak voltage and the output voltage and minimizing the voltage drop between ground and the integrated circuit substrate. But this advantage occurs merely compared to a circuit having a conventional rectifier, which has higher conversion loss than the circuit of the Kaiser et al. patent.

Since the arrangement according to claim 12 is operated without any rectifier at all, studying the Kaiser et al. patent, suggesting an advanced rectifier, would lead the person skilled in the art away from subject matter of claim 12.

In response to Applicant arguments, the Examiner responds that although the Kaiser et al. patent employs a rectifier, the means, by which the Kaiser et al. patent accomplishes this task, would be irrelevant to the argument, so long as the Kaiser et al. patent would teach all the elements for

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which it has been cited. However, there are problems of identifying the sub-components in Figure 6 of the Baude et al. patent with the sub-components of Figure 4 of the Kaiser et al. patent, which are technically so different that an identification of these different sub-components having technically different functions cannot be attained.

Further, as mentioned above, the motivation of the Kaiser et al. patent of enabling a transponder tag to minimize the voltage drop between the alternating current peak voltage and the output voltage and minimizing the voltage drop between ground and the integrated circuit substrate would lead the person skilled in the art to a RFID-circuit having an enhanced rectifier, but in any case, it would not lead the person skilled in the art to the electronic component according to amended claim 12, which makes the use of a rectifier completely unnecessary.

Therefore, claim 12 is not obvious from the Baude et al. patent in view of the Kaiser et al. patent. For similar reasons, independent claim 22 is also allowable over the art of record, as are the dependent claims from both of the independent claims.

Therefore, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections to the claims, and request allowance of these claims.

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CONCLUSION

In view of the above, Applicant respectfully submits that pending claims 12-31 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 12-31 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(h)(i). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Paul P. Kempf at Telephone No. (612) 767-2502, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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